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Acetyl-CoA Carboxylase (Phospho-Ser80) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52361

Product Information

Application	WB, IHC
Primary Accession	Q13085
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	265554

Additional Information

Gene ID	31
Other Names	Acetyl-CoA carboxylase 1, ACC1, ACC-alpha, Biotin carboxylase, ACACA, ACAC, ACC1, ACCA
Dilution	WB~~1:1000 IHC~~1:50~100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	ACACA (HGNC:84)
Synonyms	ACAC, ACC1, ACCA
Function	Cytosolic enzyme that catalyzes the carboxylation of acetyl- CoA to malonyl-CoA, the first and rate-limiting step of de novo fatty acid biosynthesis (PubMed:20457939, PubMed:20952656, PubMed:29899443). This is a 2 steps reaction starting with the ATP-dependent carboxylation of the biotin carried by the biotin carboxyl carrier (BCC) domain followed by the transfer of the carboxyl group from carboxylated biotin to acetyl-CoA (PubMed:20457939, PubMed:20952656, PubMed:29899443).
Cellular Location	Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q5SWU9}
Tissue Location	Expressed in brain, placenta, skeletal muscle, renal, pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver

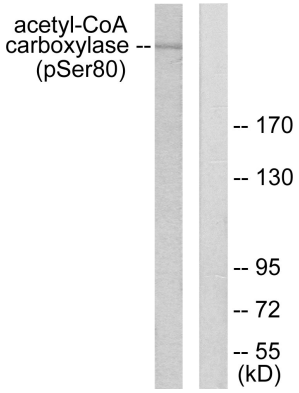
Background

Catalyzes the rate-limiting reaction in the biogenesis of long-chain fatty acids. Carries out three functions: biotin carboxyl carrier protein, biotin carboxylase and carboxyltransferase.

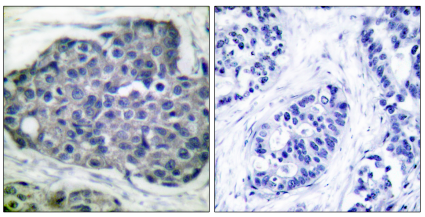
References

Abu-Elheiga L.,et al.Proc. Natl. Acad. Sci. U.S.A. 92:4011-4015(1995).
Mao J.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:7515-7520(2003).
Sinilnikova O.M.,et al.Carcinogenesis 25:2417-2424(2004).
Travers M.T.,et al.Biochim. Biophys. Acta 1634:97-106(2003).
Travers M.T.,et al.Genomics 85:71-84(2005).

Images



Western blot analysis of extracts from 293 cells treated with EGF (200ng/ml, 5mins), using Acetyl-CoA Carboxylase (phospho-Ser80) antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using Acetyl-CoA Carboxylase (phospho-Ser80) antibody.